TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

Select department

UNIVERSITY EXAMINATION FOR:

DICT JAN2016

ECS 2201: OBJECT ORIENTED PROGRAMMING

SPECIAL/ SUPPLEMENTARY EXAMINATION

SERIES: SEPTEMBER 2018

TIME: 2HOURS

DATE: Sep2018

Instructions to Candidates
You should have the following for this examination
-Answer Booklet, examination pass and student ID
This paper consists of **FIVE** questions. Attemptany THREE questions.
Do not write on the question paper.

Question ONE
(a) Explain the term object oriented programming. (2 marks)

(b) Explain any three features of object oriented programming. (6 marks)

(c) Explain the structured features of C ++ programming (12 marks)

Question TWO
a) With examples, illustrate the following C++ programming contructs:
  (i) Do while loop
  (ii) While loop
  iii) for loop (12 marks)
(b) Explain any three programming tools found in an Integrated Development Environment.
(6 marks)
c). Define the term Graphical User Interface (2 marks)

Question THREE
Write a program that uses a class Employee to display Employee details. The class should include the following members.

(i) Data members: Empno, Empnname, basicpay, houseallowance, medicalallowance

(ii) Member Function: to read employee details, to calculate gross salary and net salary

   Gross salary=basic house all + med allowance

   Net salary=gross salary – tax   (20 marks)

Question FOUR
   a) (i) Explain the term:
      I.   Static class member
      II.   Local Variable
      III.   Global variable   (6 marks)
   (b) Write a program in C++ programming Languages to read twenty integer values, calculate sum and
   average. Use loop   (10 marks)
c.) Explain the term software re-usability as used in object-oriented.   (4 marks)

Question FIVE
   a) Write a C++ program to read 50 integer values then calculate the sum of all odd numbers and even
      numbers. Use a loop   (12 marks)
   (b) Explain any four data types in C++ programming language   (8 marks)